

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-29 (Cancelled)

30. (Currently Amended) A content providing server that executes a content transmission process to a client connected via a local area network, ~~characterized by~~ comprising:

a tuner that receives content over channels ~~executes a data reception process;~~

a data transmission/reception section that executes a communication process between the server and the client via the local area network for ~~received the content by said tuner~~ and control information;

a storage section having attribute information corresponding to the ~~received content by the tuner~~ as content information;

a content management section ~~that executes a process of~~ providing said the content information to the client; and

a content distribution control section that executes live streaming ~~distribution control of the received content via said tuner~~ to the client via the local area network,

wherein ~~said~~ the storage section is ~~configured to~~
~~store~~ stores a first channel list including the ~~identifier as identification~~
~~information about a channel list containing at least a plurality of channels~~
~~of received channels by said tuner, as content information corresponding~~
~~to tuner-received content, and~~

wherein ~~said~~ the content distribution control
section streams is ~~configured to set a plurality of the~~ tuner-received
content, corresponding to the ~~plurality of channels, described in said~~
~~channel list as a single unit of controlled content, to execute control over~~
~~content for distribution corresponding to the plurality of channels described~~
~~in said channel list on the basis of a control request corresponding to the a~~
second channel list ~~identifier~~ received from the client.

31. (Currently Amended) The content providing server as
described in claim 30, wherein ~~characterized in that:~~

~~said the first channel list identifier is a~~ comprises a plurality
of channel list [[URL]] URLs (Uniform Resource Locators);

the second channel list comprises one of the URLs;

~~said the~~ storage section is configured to store ~~said the~~
~~channel list [[URL]] URLs~~ as attribute information corresponding to ~~said~~
~~tuner-received the~~ content; and

~~said the content distribution control section is configured to execute distribution control over stream the content on the plurality of channels received by said tuner specified on the basis of said channel list~~
the one URL₁ according to the control request from the client.

32. (Currently Amended) The content providing server as described in claim 30, ~~characterized in that~~ wherein:

~~said the first channel list identifier is~~ comprises a plurality
~~channel list of [[URL]]~~ URLs (Uniform Resource Locators);

the second channel list comprises one of the URLs;

a connection for ~~distribution~~ streaming of the ~~tuner received~~
content between the server and the client is an HTTP (HyperText
Transport Protocol) connection set on the basis of ~~said the one channel-~~
~~list URL; and~~

~~said the content distribution control section is configured to execute streams the content which continuously uses via the HTTP connection set on the basis of said channel list URL[[,]] before and after channel switching, wherein the channel switching comprises ~~executed as~~
~~switching of between the plurality of tuner received content corresponding~~
~~to the plurality of channels described in said the second channel list.~~~~

33. (Currently Amended) The content providing server as described in claim 30, ~~characterized in that~~ wherein:

~~said the content information contains ~~content-corresponding~~~~
~~protocol information comprising[[;]] a function ID, as tuner identification~~
~~information, set so as to correspond corresponding to the received via the~~
~~above-mentioned tuner contains a function ID as tuner identification-~~
~~information; and~~

~~said the content distribution control section is configured to~~
~~execute a process of setting set a control instance that executes control~~
~~over the tuner-received content, by executing as a control instance that~~
~~executes control over [[a]] the tuner for control which is determined on the~~
~~basis of based on said the function ID.~~

34. (Currently amended) The content providing server as
described in claim 30, ~~characterized in that~~ wherein:

~~said the content distribution control section is configured to~~
~~set sets a control instance to execute that executes content distribution~~
~~control over each for streaming content for distribution[[,]] to execute~~
~~content-based distribution control which is based on the control instance;~~
and

a tuner control instance ~~that~~ executes control over said
tuner-received the content is configured to execute by control over said
controlling the tuner on the basis of the control request from the client.

35. (Currently Amended) The content providing server as
described in claim 30, ~~characterized in that~~ wherein:

said the content distribution control section is configured to:

set a control instance ~~that executes~~ to execute
content distribution control over each for streaming content for distribution-
[[,]] ~~to execute content-based distribution control which is based on the~~
~~control instance[[,]];~~ and

execute connection management ~~which is based~~
on a connection management table comprising ~~in which~~ an instance ID as
an identifier of said the control instance, a connection ID as a connection
identifier between the server and the client, and protocol information
corresponding to the content for distribution ~~are associated with each~~
other.

36. (Currently Amended) The content providing server as
described in claim 30, ~~characterized in that~~ wherein:

said the content distribution control section is configured to:

set a control instance ~~that executes content-~~
~~distribution control over each~~ for streaming content for distribution, ~~to-~~
~~execute content-based distribution control which is based on the control-~~
~~instance[[,]]~~ and wherein said the control instance is configured to have an
instance ID set as an identifier[[,]]; and

execute the content distribution control according
to a control request from the client, wherein the client request designates
the control instance ID ~~is designated~~.

37. (Currently Amended) The content providing server as described in claim 30, ~~characterized in that~~ wherein:

~~said~~ the content distribution control section is configured to:
receive a control request from the client, for
streaming the content, ~~for distribution wherein the control request which is~~
compliant with a SOAP (Simple Object Access Control Protocol) ~~protocol,~~
~~from the client~~[[,]]; and
execute distribution control over the ~~tuner-received~~
content on the basis of ~~said~~ the control request.

38. (Currently Amended) The content providing server as described in claim 30, ~~characterized in that~~ wherein:

~~said~~ the first channel list is configured to be set as a list
formed from the plurality of channels divided according to categories.

39. (Currently Amended) The content providing server as described in claim 30, ~~characterized in that~~ wherein:

~~said~~ the content distribution control section is ~~characterized~~
~~by being configured to:~~ ~~execute, during execution of distribution control~~
~~over content on the plurality of channels received by said tuner specified~~
~~on the basis of a channel list URL as the identifier of said channel list,~~
~~distribution of the tuner-received content specified on the basis of the~~
~~channel list URL, in response to an HTTP-GET method received as a~~

~~content request from another client wherein the same channel list URL is
designated, through an HTTP connection which is based on said channel
list URL~~

set a URL as an identifier for the second channel
list;

receive an HTTP-GET method as a content
request from another client, the request invoking the URL; and
stream, through an HTTP connection, content based on the
URL invoked by the client.

40. (Currently Amended) The content providing server as
described in claim 30, ~~characterized in that~~ wherein:

~~said the first channel list identifier is a~~ comprises a plurality
of channel URL URLs (Uniform Resource Locators);

the second channel list comprises one of the URLs;

a connection for ~~distribution~~ streaming of the ~~tuner-received~~
content between the server and the client is an HTTP (HyperText Transfer
Protocol) connection, wherein the connection is set on the basis of said
the one channel list URL;

said the content distribution control section is configured to:

determine whether or not ~~matching of coded data-~~
~~for transmission~~ streaming to the client can be maintained even when

there is switching between the plurality of channels described in said the
second channel list ~~has been switched~~[[,]]; and

execute breakage of the HTTP connection ~~set on~~
~~the basis of said channel list URL~~ where it is determined that the matching
streaming cannot be maintained; and

said the content providing server is configured to ~~further~~
~~execute a process of notifying~~ notify breakage information about the HTTP
connection ~~set on the basis of the channel list URL~~, via an event
notification connection between the server and the client.

41. (Currently Amended) The content providing server as
described in claim 30, ~~characterized in that~~ wherein:

said the first channel list ~~identifier is~~ comprises a plurality of
~~channel list URL~~ URLs (Uniform Resource Locators);

the second channel list comprises one of the URLs;

a connection for ~~distribution~~ streaming of the ~~tuner-received~~
content between the server and the client is an HTTP (HyperText
Transport Protocol) connection set on the basis of ~~said channel list~~ the
one URL; and

said the content distribution control section is configured to
execute switching ~~of a plurality of~~ between the channels described in ~~said~~
the second channel list by controlling the ~~tuner control~~ at a timing when

~~matching of coded data for transmission~~ streaming, of the channels, to the client can be maintained.

42. (Currently Amended) An information processing apparatus that receives ~~received content by a tuner set to a server connected via a local area network,~~ from ~~[[the]]~~ a tuner set in a server via ~~[[the]]~~ a local area network, characterized by comprising:

a data transmission/reception section that executes data transmission/reception process with respect to the server that provides ~~tuner-received content via the local area network,~~ wherein the tuner receives the content over channels and the server stores a first channel list including the channels; and

a control section configured to:

~~transmits~~ transmit to the server, via the local area network, a content transmission request ~~which is based on~~ including a second channel list identifier, the second channel list ~~which is an identifier of a list containing at least~~ including a plurality of the channels included in the first channel list ~~of received channels by said tuner [[,]] to said server;~~ and

~~also executes a process of transmitting~~ transmit a distribution control request for tuner-received the content, wherein the server designates a control instance that executes control over content distribution ~~streaming control is designated in said server.~~

43. (Currently Amended) The information processing apparatus as described in claim 42, ~~characterized in that~~ wherein:

~~said~~ the control section is configured to:

transmit a connection preparation request,
~~wherein a function ID as tuner identification information which is a piece of protocol information contained in content information received from said server is stored~~[[,]] to said the server, to acquire an ID of [[a]] the control instance ~~that executes control over the tuner received content~~, wherein the ID comprises a tuner identification function ID based on protocol information stored in the server ~~received from said server~~[[,]]; and to ~~execute a process of transmitting~~

~~transmitting~~ transmit the distribution control request for the ~~tuner received~~ content, wherein said the acquired control instance ID is included in the distribution control request ~~designated, as a response to said connection preparation request.~~

44. (Currently Amended) The information processing apparatus as described in claim 42, ~~characterized in that~~ wherein:

~~an identifier of said~~ the first channel list is a channel list comprises a plurality of URLs [[URL]] (Uniform Resource Locators);

the second channel list comprises one of the URLs;

a connection for ~~distribution~~ streaming of ~~tuner received~~ the content between the server and the client is an HTTP (HyperText

Transport Protocol) connection set on the basis of ~~said the one channel-~~
~~list~~ URL; and

~~said the~~ control section ~~is configured to execute~~ executes
content reception before and after switching ~~[[of]]~~ between the plurality of
channels described in ~~said the second~~ channel list by ~~continuously~~ using
the HTTP connection ~~set on the basis of said channel list URL.~~

45. (Currently Amended) A content transmission control
method for transmitting content from a tuner, set in a server, to a client via
a local area network, wherein the tuner receives the content over channels
and the server stores a first channel list including the channels, ~~received-~~
~~content by a tuner set to a content providing server, to a client via a local-~~
~~area network, characterized by comprising:~~

~~a control instance setting step[[,]]~~ of setting a control
instance, wherein ~~tuner received~~ content corresponding to a ~~plurality of~~
channels ~~described~~ in a second channel list ~~containing at least the~~
~~plurality of channels of channels by said tuner[[,]]~~ is set ~~[[,]]~~ as a unit of
content~~[[,]]~~ for to execute control over streaming of the content
corresponding to the second channel list;

~~a control request reception step of~~ receiving a control
request, ~~to said~~ designating the control instance, from the client via the
local area network; and

~~a control step of executing~~ controlling the tuner control by
~~said using the~~ control instance designated in ~~on the basis of said the~~
control request.

46. (Currently Amended) The content transmission control
method as described in claim 45, ~~characterized in that~~ wherein:

~~said the first~~ channel list identifier ~~is a~~ comprises a plurality
of channel list URL URLs (Uniform Resource Locators);

the second channel list comprises one of the URLs; and

~~said setting the~~ control instance ~~setting step~~ further
comprises ~~a step of~~ associating ~~said channel list~~ the one URL with the
control instance.

47. (Currently Amended) The content transmission control
method as described in claim 45, ~~characterized in that~~ wherein:

~~said the first~~ channel list identifier ~~is a channel list URL~~
comprises a plurality or URLs (Uniform Resource Locators);

the second channel list comprises one of the URLs;

a connection for ~~distribution~~ streaming of ~~tuner-received~~ the
content between the server and the client is an HTTP (HyperText Transfer
Protocol) connection set on the basis of ~~said~~ the one channel list URL;
and

~~said setting the control instance further comprises step is~~
~~configured to execute content streaming distribution which continuously~~
~~uses using the HTTP connection set on the basis of said channel list URL,~~
~~wherein the content streaming is executed before and after channel~~
~~switching executed as switching between of the plurality of tuner received~~
~~content corresponding to the plurality of channels described in said the~~
~~second channel list.~~

48. (Currently Amended) The content transmission control method as described in claim 45, ~~characterized in that~~ wherein:

~~said the content information contains protocol information~~
~~corresponding to the content[[;]], the protocol information set so as to~~
~~correspond to the received content via said tuner contains containing a~~
function ID as tuner identification information; and

~~said setting the control instance further comprises setting~~
~~step is configured to execute a process of setting a control instance that~~
~~executes control over the tuner received content as a control instance that~~
~~executes control over a controlling the tuner for control which is~~
determined on the basis of said the function ID.

49. (Currently Amended) The content transmission control method as described in claim 45, ~~characterized in that~~ wherein:

~~said the content transmission control method further~~
~~comprises a step of executing connection management which is based on~~

a connection management table comprising ~~in which~~ an instance ID as an identifier of ~~said~~ the control instance, a connection ID as a connection identifier between the server and the client, and protocol information corresponding to the content ~~for distribution are associated with each other.~~

50. (Currently Amended) The content transmission control method as described in claim 45, ~~characterized in that~~ wherein:

~~said control request reception step is a step of receiving [[a]]~~
the control request further comprises receiving a request for streaming
~~content for distribution~~ compliant with a SOAP (Simple Object Access Control Protocol) ~~protocol.~~

51. (Currently Amended) The content transmission control method as described in claim 45, ~~characterized in that~~ further comprising:

~~said content transmission control method further comprises~~
~~a step of executing, during execution of distribution control over content on~~
~~the plurality of channels received by said tuner specified on the basis of a~~
~~channel list URL as an identifier of said channel list, distribution of the~~
~~tuner-received content specified on the basis of the channel list URL, in~~
~~response to an HTTP-GET method received as a content request from~~
~~another client wherein the same channel list URL is designated, through~~
~~an HTTP connection which is based on said channel list URL~~

setting a URL as an identifier for the second channel list;

receiving an HTTP-GET method as a content request from
another client, the request invoking the URL; and
streaming, through an HTTP connection, content based on
the URL invoked by the client.

52. (Currently Amended) The content transmission control
method as described in claim 45, ~~characterized in that~~ wherein:

~~said the first~~ channel list identifier is a channel list URL
comprises a plurality of URLs (Uniform Resource Locators);

the second channels list comprises one of the URLs;

a connection for streaming of the ~~distribution for tuner-~~
~~received~~ content is an HTTP (HyperText Transfer Protocol) connection set
on the basis of ~~said channel list~~ the one URL; and

~~said~~ content transmission control method further comprises:

~~a step of determining whether or not matching of~~
~~coded data for transmission~~[[,]] streaming of the content, to the client can
be maintained even when there is switching between the plurality of
channels described in ~~said~~ the second channel list ~~has been switched~~[[,]];
and

~~executing breakage of the HTTP connection set on~~
~~the basis of said channel list URL~~ where it is determined that the ~~matching~~
streaming cannot be maintained; and

~~a step of executing a process of notifying breakage~~
information about the HTTP connection ~~set on the basis of the channel list~~
URL[[,]] via an event notification connection between the server and the
client.

53. (Currently Amended) The content transmission control
method as described in claim 45, ~~characterized in that~~ wherein:

~~an identifier of said~~ the first channel list is a channel list URL
comprises a plurality of URLs(Uniform Resource Locators);

the second channel list comprises one of the URLs;

a connection for ~~distribution~~ streaming of the ~~tuner-received~~
content is an HTTP (HyperText Transfer Protocol) connection set on the
basis of ~~said channel list~~ the one URL; and

~~said control step comprises a step of executing switching~~
[[of]] between the plurality of channels described in ~~said~~ the second
channel list by controlling the tuner ~~control~~ at a timing when ~~matching of~~
~~coded data for transmission~~ streaming of the content, to the client, can be
maintained.

54. (Currently Amended) An information processing
method for receiving ~~received~~ content [[by]] from a tuner set [[to]] in a
server[[,]] ~~from the server~~ via a local area network, wherein the tuner

receives the content over channels and the server stores a first channel

list including the channels, characterized by comprising:

~~a content transmission requesting step of transmitting a~~
content transmission request ~~which is based on~~ including a second
channel list identifier, ~~which is an identifier of a~~ the second channel list
~~containing at least~~ including a plurality of the channels included in the first
channel list of received by said tuner; and

~~a control requesting step of executing a process of~~
transmitting via the local area network a distribution control request for
~~tuner received the content, wherein the server designates~~ a control
instance that executes control over content distribution ~~in said server[,]] is~~
designated.

55. (Currently Amended) The information
processing method as described in claim 54, ~~characterized in that~~ further
comprising:

~~said content transmission request step comprises a step of~~
transmitting a connection preparation request, ~~wherein a function ID as~~
~~tuner identification information which is a piece of protocol information~~
~~contained in content information received from said server, is stored, to~~
~~said the server, to acquire an ID of the control instance, wherein the ID~~
comprises a tuner identification function ID based on protocol information
stored in the server; and

~~said control request step comprises a step of executing a
process of transmitting a distribution control request for tuner-received the
content, wherein an ID of a the acquired control instance ID that executes
control over tuner-received content received from said server is included
in the distribution control request designated[[,]] as a response to said
connection preparation request.~~

56. (Currently Amended) The information processing
method as described in claim 54, ~~characterized in that~~ wherein:

~~said the first channel list identifier is a channel list URL
comprises a plurality of URLs (Uniform Resource Locators);~~

the second channel list comprises one of the URLs;

a connection for ~~distribution~~ streaming of ~~tuner-received the~~
content is an HTTP (HyperText Transfer Protocol) connection set on the
basis of ~~said channel list~~ the one URL; and

~~said information processing method is configured to execute
executing content reception[[,]] before and after channel switching
executed as switching of a between the plurality of channels described in
said the second channel list by[[,]] continuously using the HTTP
connection set on the basis of said channel list URL.~~

57. (Currently Amended) A computer program that
~~executes a content transmission control process for transmitting received-~~

~~content by a tuner set to a content providing server, to a client via a local area network, characterized by~~ computer-readable storage medium comprising a computer program which when executed on a processor, causes the processor to perform a method, the method comprising:

transmitting content from a tuner, set in a server, to a client via a local area network, wherein the tuner receives the content over channels and the server stores a first channel list including the channels;

~~a control instance setting step of setting a control instance,~~ wherein ~~tuner-received~~ content corresponding to a ~~plurality of~~ channels described in a second channel list ~~containing at least the plurality of channels of received channels by said tuner~~ is set [[,]] as a unit of content for to execute control over streaming of the content corresponding to the second channel list;

~~a control request receiving step of receiving a control request, to said~~ designating the control instance, from the client via the local area network; and

~~a control step of executing~~ controlling the tuner control by said using the control instance designated in ~~on the basis of said the control request.~~

58. (Currently Amended) ~~A computer program that executes an information processing process for receiving received content by a tuner set to a server, from the server via a local area network,~~

characterized by computer-readable storage medium comprising a computer program which when executed on a processor, causes the processor to perform a method, the method comprising:

receiving content from a tuner set in a server, via a local area network, wherein the tuner receives the content over channels and the server stores a first channel list including the channels;

~~a content transmission requesting step of transmitting a content transmission request which is based on~~ including a second channel list identifier, the second channel list which is an identifier of a list containing at least including a plurality of the channels included in the first channel list ~~of received channels by said tuner; and~~

~~a control requesting step of executing a process of~~ transmitting₁ via the local area network₁ a distribution control request for ~~tuner-received~~ the content₁ wherein a control instance that executes control over content streaming distribution is designated in the said server ~~[[,]] is designated.~~